

CLAIMS

1. A washing machine with a self-diagnostic function and a communication function comprising:  
670 a washing tub for selectively performing a water washing or an oil washing depending on the laundry;  
a water supply for supplying water to the washing tub;  
an oil supply for supplying oil to the washing tub;  
a drainage for discharging the water or the oil contained in the washing tube  
675 to the outside;  
a first detergent supply mounted to the water supply to mix an amount of detergent in the water being supplied to the washing tub; and  
a second detergent supply mounted to the oil supply to mix an amount of detergent in the oil being supplied to the washing tub.  
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2. The washing machine of claim 1, wherein the washing tub comprises a drying unit having a heater for heating an air to generate a hot air, and a fan motor equipped with an inverter and a fan for blowing the hot air into the washing tub,  
685 whereby the laundry in the washing tub after a washing process is dried by the hot air.
3. The washing machine of claim 1, wherein the first detergent supply comprises a detergent tank for keeping therein detergent, a metering pump for  
690 feeding a constant amount of the detergent, and a safety relief valve for maintaining a pressure of an output side of the metering pump in a constant level.
4. The washing machine of claim 1 or 3, wherein the water supply comprises a  
695 water conversion unit for a conversion of hard water into soft water.
5. The washing machine of claim 4, wherein the water supply further comprises a first temperature control unit for adjusting temperature of the water being supplied  
700 into the washing tub to a level optimal to the washing.

6. The washing machine of claim 1, further comprising a reclamation unit having a reclamation tank keeping therein wasted oil, a plurality of heat exchangers for previously heating the wasted oil and for liquidizing oil vapor, and an oil vaporizer for vaporizing the pre-heated oil to separate alien material from oil, wherein the reclamation unit is integrally formed with the washing machine or is formed in an independent form from the washing machine.

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7. The washing machine of claim 6, wherein said heat exchanger has a plurality of coolers for cooling the oil vapor reclaimed in the oil vaporizer step-by-step to liquidize the oil vapor, and a pre-heater for previously heating the oil to be reclaimed which is supplied from the reclamation tank and for previously cooling the reclaimed oil vapor to feed the oil vapor to the cooler through a heat exchange between the oil being introduced into the oil vaporizer and the oil vapor being discharged from the oil vaporizer, wherein heat transfer tubes used in the heat exchanger is of a high-fin type.

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8. The washing machine of claim 1, further comprising a communication system having a main computer for monitoring and controlling the washing machine in a real time to allow the user to solve a problem by himself under an assistance by a program for self-diagnosis in an emergency situation of the washing machine, and for performing a communication and a control through a connection to a PSTN, a touch panel (TFT-LCD) for displaying information in visual manner such as a graph or figures, a camera, a microphone and a speaker enabling the user to perform a real time maintenance through a visual and audible dialogue with a product provider or a technical expert in remote place based on MPEG4 technology, and a server connected to the main computer through the PSTN.

9. The washing machine of claim 1, wherein said main computer transmits an alarm signal and information about a current state of the washing machine to a mobile terminal of the user by using a SMS (Short Message Service).

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